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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,411	09/23/2005	Jose Manuel Nunes Vicente Rebordao	P-8175-US	3353

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EXAMINER

BOUTSIKARIS, LEONIDAS

ART UNIT	PAPER NUMBER
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2872

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/550,411	Applicant(s) NUNES VICENTE REBORDAO ET AL.	
	Examiner Leo Boutsikaris	Art Unit 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/21/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claims 1-6 are objected to because of the following informalities:

in claim 1, line 3, the word “delimitate” should be changed to “delimit”.

in claim 3, the term “scheimpflug” should be changed to “Schimpflug”.

Claims 2, 4-6 inherit the deficiency of claim 1 from which they depend.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The language of claim 2 is completely descriptive in nature (“...ensures that the time needed...”)) and very hard to follow. The examiner is unable to ascertain the meaning of said claim, and a meaningful prior art search could not be performed.

Claim 3 refers to the optical setup configuration being based on the Shimpflug and Hinge conditions without specifically mentioning how the various components of the setup are positioned so that said conditions are satisfied. The phrase “ensuring adequate superposition

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between different optical beams in an imaging configuration” is descriptive in nature and does not disclose the required positional relationship between the various components. Due to the above indefiniteness, a meaningful prior art search could not be performed.

Claims 4-6, recite “an optical setup configuration that implements in practical terms claim 1”. The examiner cannot understand what the above means, and specifically the scope of the term “practical”. It is not clear what “practicality” has to do with the recording configuration.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 4-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Bloomstein (US 2002/0149751).

Regarding claim 1, Bloomstein discloses a holographic lithographic system (Fig. 2), wherein the two recording beams 115a and 115b are made to interfere within a selected area of the photosensitive material 150, without the use of any physical mask to limit the spatial extent of the recorded area ([0037]). It is noted that members 280a and 280b are shutters or attenuators (not masks), used to block one of the two recording beams for alignment purposes ([0039]). Furthermore, the setup of Fig. 2 ensures that only the area covered by the overlap of the two recording beams is exposed to light.

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Regarding claims 4-5, Bloomstein teaches that a data modulation mask may be placed in the path of one or more of the beams 115a and 115b, yielding a configuration based on one object physical location and two optical channels or based on two object physical locations and two optical channels, respectively ([0044]).

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Hobbs (US 2001/0035991).

Regarding claim 1, Hobbs discloses a holographic lithographic system (Fig. 1a), wherein the two recording beams (lower 28 and upper part 30 of incoming beam 32) are made to interfere within a selected area of the photosensitive material 16, without the use of any physical mask to limit the spatial extent of the recorded area ([0006], [0009]). Furthermore, the setup of Fig. 1a ensures that only the area covered by the overlap of the two recording beams is exposed to light.

Regarding claim 6, because of the folded geometry configuration, the lithographic system of Fig. 1a utilizes only one object physical location and one optical channel (consisting of beam 32).

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Leo Boutsikaris whose telephone number is 571-272-2308. The examiner can normally be reached on M-F, 10-6.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone Allen can be reached on 571-272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Leo Boutsikaris, Ph.D., Esq.
Primary Patent Examiner, AU 2872
February 17, 2007


LEONIDAS BOUTSIKARIS
PRIMARY EXAMINER